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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, KHANH V

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,628

Applicant(s)

MOHANDAS ET AL.

Examiner

Khanh V. Nguyen

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, 10-13 and 16 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 9, 14, 15, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2817

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 8, 11, 13 are rejected under 35 U.S.C. 102(e) as being anticipated by JP 2001126293 (SHARP).

Regarding claims 1, 7, 8, 11, Japan (Fig. 2) discloses an amplifier circuit comprising: a block (5) comprises a current source (13) connected to ground, thus current source (13) is capable of configure to sink a current; and a differential amplifier (3) having a first input (+) coupled to a photodiode (PD) via block (4) and a second input (-) coupled to the current source (13), wherein the photodiode can be read as a sensor.

Regarding claim 13, Sharp discloses bipolar transistor (Tr3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2817

Claims 4-6, 10, 12, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001126293 (SHARP).

Regarding claim 4, 5, Japan discloses the claimed invention except that current source is a field effect transistor. Japan (Fig. 2) discloses a current source (13) coupled between the second input (-) and ground. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced current source (13) of Japan with a field effect transistor since it is well-known in the art that current source can be a field effect transistor (see Patent 5,742,183, Figs. 11A-11C). Regarding the operation of the current source or field effect transistor would be considered a matter of design engineering or system configuration to configure the current source or field effect transistor to operate as desired.

Regarding claim 6, Sharp (Fig. 2) discloses bipolar transistor (Tr3) having an emitter coupled to a second input (-) via transistor (Tr4) and current source (13).

Regarding claim 10, Sharp (Fig. 2) discloses an amplifier circuit comprising: a photodiode (PD) can be read as a sensor generates a current at a first node coupled directly to input (+) of differential amplifier (3); a current source (13) having one terminal connected to ground for sinking at a second node coupled directly to input (-) of differential amplifier (3). Regarding the operation of the current source or field effect transistor would be considered a matter of design engineering or system configuration to configure the current source to operate as desired (current source greater than current generated by the sensor).

Art Unit: 2817

Regarding claim 12, Sharp discloses the claimed invention except the type of transistor used. However, it is known in the art that bipolar transistor and field effect transistor can be used interchangeably. Thus, substituting bipolar transistor for field effect transistor is considered a matter of design engineering.

Regarding claim 16, amount of current produced can be configured according to system design engineering.

Allowable Subject Matter

Claims 2, 3, 9, 14, 15, 17, 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 2, 3, 14, 15, 17, 18 call for, among others, first and second feedback resistors (111, 113).

Claim 9 calls for, among others, post amplifier (305) having the connection thereof.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh V. Nguyen whose telephone number is (703) 306-9058. The examiner can normally be reached from 8:00 AM-5:00 PM.

Art Unit: 2817

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service at (703) 872-9317.

NKV

03/20/03

A handwritten signature in black ink, appearing to read 'Nguyen, Khanh Van', written over a horizontal line.

Nguyen, Khanh Van

Group 2800, Art Unit 2817